

REMARKS

Claims 1 - 17 are in this application and are presented for reconsideration. By this Amendment, Applicant has amended claims 1 - 17, and made various minor changes to the specification and claims to improve the clarity and style of this application and to address issues raised in the Office Action.

Applicant thanks the Examiner for the careful reading of the specification and claims, and for providing helpful suggestions.

By this Amendment, the Applicant has amended the specification and several claims to overcome the Examiner's rejections and respectfully makes assertions for overcoming the rejections of the outstanding Office Action in the following paragraphs.

SPECIFICATION

The disclosure has been objected to because the paragraph 0001 cites "preamble of the principal claim".

In response, Applicant has amended paragraph 001 by deleting the above phrase.

The disclosure has also been objected to for citing that "the edge mini-disk bit 8 at the additional conveying screws 18, 19, 20, 21" conflicts with drawing Figure 2 where only disk bit 9 is on the additional conveying screws.

In response, Applicant has amended paragraph 0027 and inserted disk bit 9 into appropriate portion of the paragraph.

INFORMATION DISCLOSURE STATEMENT

The reference disclosed on page 12 of the specification has been objected to, for not being properly submitted in an information disclosure statement under 37 C.F.R. §1.98(b) in a paper separate from the specification.

In response, Applicant attaches herewith a form PTO-1449 for the reference to be properly considered by the examiner.

DRAWINGS

The drawings have been objected to under 37 C.F.R. §1.83(a) for failing to show the reference character 27 as described in the specification (page 19).

In response, Applicant has eliminated the reference character 27 in the paragraph 29 of the specification on page 19.

The drawings have been objected to under 37 C.F.R. §1.83(a) for failing to show the additional conveying screws called for in claims 3, 10, and 17.

In response, Applicant notes that the additional conveying screws are shown on Figure 2 of the drawings and labeled as elements 17, 18, 19, and 21.

The drawings have been objected to under 37 C.F.R. §1.83(a) for failing to show the mini-disk arranged directly on the cutting roller as called for in claims 6 and 13.

In response, Applicant has amended these claims to resolve this issue.

CLAIM REJECTIONS-35USC§112

Claims 3, 6, 10, 13, 15, and 17 have been rejected under 35 U.S.C. §112, first paragraph, for failing to comply with the enablement requirement. Specifically, following issues have been raised by the Office Action:

The rejection stated that claims 3, 10, and 17 call for “the frustum length of be higher by the depth of penetration of the mini-disk bits in the two edge areas on the frustum length than in the additional conveying screws in the middle wall area” was not described in the specification adequately and one skilled in the art cannot make and/or use the invention as claimed.

It is Applicant’s position that the specification adequately describes the feature of conveying screws on the frustum length that are higher by the depth of penetration of the mini disk bits in the two edge-areas on the frustum length than the conveying screws and a set of additional screws in the middle wall area so that a person skilled in the art can made and/or use the invention as claimed. Specifically, on page 17, line 11 - 14, the specification discloses the following:

“The number of disk bits arranged in each rolling path of the edge area L_{RB} is doubled and these disk bits are arranged on the width of the edge area L_{RB} higher by one depth of cut of the edge bits than in the wall area.”

The rejection states that the claims 6 and 13 call for “behind the cutting roller ... cutting line distance” was never described adequately and one skilled in the art can not make/or use

the invention as claimed.

Applicant has amended the claims 6 and 13 so that the claims 6 and 13 no longer states that the bit holder is arranged behind the cutting roller. Further, Applicant has amended the claims 6 and 13 to clarify the cutting line. Thus, it is Applicant's position that these two issues are now moot in light of the amendment and a person skilled in the art can made and/or use the invention as claimed.

The rejection states that the "mini-disk bits in each frusta area being directed inwardly" in claim 15 is a new matter.

Applicant has amended claim 15 so that the claim 15 now reads as the wedge flank being directed inwardly and not the mini-disk bits. Thus, it is Applicant's position that the issue is now moot. Further, the specification adequately describes the an inwardly wedge flank for mini-disk bits in each frusta area being directed inwardly as, for instance, can be seen in Figs. 2 and 4, and on page 17, line 7 - 13, (reproduced in the following):

"The three-dimensional arrangement of the mini-disk bits 8, 9 in the edge areas L_{RB} and their path distances are set according to the so-called free-cut. $t_{BR} = (1-2)p_D$ and the edge mini-disk bit 8 at the conveying screws 10, 11, 12, 13 and at the additional conveying screws 18, 19, 20, 21 are arranged in the same rolling paths and are directed with the driving wedge flanks toward the outside (Figure 2 and Figure 4)."

Claims 1 - 17 have been rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Specifically, the office action pointed out the following particular issues:

The rejection stated that it is unclear how the “mining member”, “cutting roller”, “roller body” and “roller jacket” of claim 1 are all related.

In response, Applicant has clarified the subject matter of the invention by amending the claim 1 and further amending the paragraph 0002 to describe in further detail, the elements “mining member” and the “cutting roller”.

The rejection states that the “roller equipped with said ... rotation of the roller” of claim 1, lines 19+ are awkward and confusing.

In response, Applicant has amended claim 1 and clarified the combination of feature of the roller equipped as presented by the subject matter of the invention.

The rejection states that “the two frusta” at lines 21 - 22 of claim 1 and “outwardly tapering frusta” at line 13 of claim 1 appear to be same and thus should be related.

In response, Applicant has clarified the subject matter of the invention by amending the claim 1 and relating the first occurrence of frusta with the second occurrence of frusta in the claim.

The rejection states that the phrase, “mini-disk bits on said two halves of the wall are conveying screws” at lines 1 - 2 of claim 2 is awkward and confusing and further does not correspond to description at page 16 of the specification.

In response, Applicant has clarified the subject matter of the invention by amending

claim 2 to correspond with the description at page 16 of the specification.

The rejection states that “the additional conveying screws” of claim 3 lacks clear antecedent basis and the additional conveying screws were never shown or disclosed in the specification as being in the middle wall area.

In response, Applicant has clarified the subject matter of the invention by amending claim 3 to provide for proper antecedent basis among other issues.

The rejection states that the phrase, “that the roller body” of claim 4, line 1 is awkward.

In response, Applicant has clarified the subject matter of the invention by amending the claim 4 and rewording the “that the roller body”.

The rejection states that the phrase at line 3 of claim 6, “either directly on the cutting roller ... the cutting line distance” is confusing, lacks antecedent basis in the specification, and all the alternatives were never shown in the drawings. The rejection further states that the “said additional conveying screws” lacks clear antecedent basis, and “behind the cutting roller...” is never described in the specification to enable one to understand the claimed invention.

In response, Applicant has amended claim 6 by clarifying the phrase “either directly on the cutting roller ... the cutting light distance”.

The rejection states that “said axis of” of claim 7 lacks clear antecedent basis and is confusing.

In response, Applicant has clarified the subject matter of the invention by providing a proper antecedent basis for the “said axis of” in claim 7.

The rejection states that “the additional conveying screws” of claim 10 lacks clear antecedent basis and additional conveying screws were never shown or disclosed in the

specificaiton as being in the middle wall area.

In response, Applicant has clarified the subject matter of the invention by amending claim 10 to provide for proper antecedent basis among other issues.

The rejection states that the phrase, "that the roller body" of claim 11, line 1 is awkward.

In response, Applicant has clarified the subject matter of the invention by amending the claim 11 and rewording the "that the roller body".

The rejection states that the phrase at line 3, of claim 13, "either directly on the cutting roller ... the cutting line distance" is confusing, lacks antecedent basis in the specification, and all of the alternatives were never shown in the drawings. The rejection further states that the "said additional conveying screws" lacks clear antecedent basis, and "behind the cutting roller..." is never described in the specification to enable one to understand the claimed invention.

In response, Applicant has amended claim 13 by clarifying the phrase "either directly on the cutting roller ... the cutting light distance".

The rejection states that the phrase of claim 14, "said axis of" lacks clear antecedent basis and is confusing.

In response, Applicant has clarified the subject matter of the invention by providing a proper antecedent basis for the "said axis of" in claim 14.

The rejection states that the phrase at line 17 of claim 15, "having wedge ... other half of said cylinder middle area" is confusing. Furthermore, the rejection goes on to state that "said mini-disk bits in each frusta area being directed inwardly appears incorrect and possibly

constitute a new matter and postulates that it appears that it should be the wedge flank that is directed inwardly.

In response, Applicant has clarified the subject matter of the invention by amending the claim in issue as suggested by the examiner. Applicant thanks the examiner for providing this suggestion among others.

The rejection states that the “wall are conveying screws” of claim 16 is confusing and “the wall” lacks clear antecedent basis.

In response, Applicant has amended claim 16 to provide for a better wording of the phrase “wall are conveying screws”. The terms in claim 16 are more in line with the terms used in the specification. Applicant thanks the examiner for pointing this difference out.

The rejection states that “the additional conveying screws” of claim 17 lacks clear antecedent basis and the additional conveying screws were never shown or disclosed in the specification as being in the middle wall area.

In response, Applicant has amended the “the additional conveying screws” to provide for a proper antecedent basis. Further, Applicant points to elements 18, 19, 20, and 21 as provided in Figure 2 which shows the additional conveying screws.

At this time, Applicant respectfully requests reconsideration of this application in view of the above amendments and remarks, and Applicant respectfully solicits allowance of this application.

It is applicant's position that all claims are now allowable. Should the Examiner determine that issues remain that have not been resolved by this response, the Examiner is requested to contact Applicant's representative at the number listed below.

The Examiner is requested to consider reference of DE 101 58 603.5C1 cited in the specification on page 12. This reference discloses a design especially suitable for use as mini-disk bits.

Consideration of the reference and favorable action on the merits is respectfully requested.

Respectfully submitted
for Applicant,

By: 

John James McGlew
Registration No. 31,903
McGLEW AND TUTTLE, P.C.

JJM/DWK:jms

Enclosed: PTO 1449 Form
Copy of DE 101 58 603 C1

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SCARBOROUGH STATION
SCARBOROUGH, NEW YORK 10510-0827
(914) 941-5600

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